# NAMAN YESHWANTH KUMAR

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## EDUCATION

**Master of Science** **Expected: May 2026**
Arizona State University - Computer Eng (GPA 3.8/4.0) **Tempe, AZ**

- Relevant course work: Systems Engineering, VLSI, Foundations of Algorithms, Advanced AI, Reinforcement Learning in Robotics, Perception in Robotics, Hardware-Software Co-design, SoC Design, Advanced Computer Architecture

**Nanodegree - Self-Driving Car Engineer** **February 2023**
Udacity

- Key Areas: Machine Learning, Sensor Fusion, Computer Vision, Path Planning, and Control, with hands-on projects in object detection, trajectory tracking, and autonomous vehicle motion

**Bachelor of Engineering** **June 2022**
BMS College of Engineering - Electrical and Electronics Eng **Bengaluru, India**

## TECHNICAL SKILLS

**Generative AI & Machine Learning:** Gen AI | Prompt Engineering | LLM Applications | Machine Learning | Computer Vision | Automation Workflows | Google Gemini AI

**Programming Languages:** Python | SQL | C++ | MATLAB | JavaScript | Shell Script | Version Control (Git)

**Systems & Development Tools:** TensorFlow | PyTorch | Docker | Git | AWS | Test Engineering | Pipeline Automation | Linux | Windows

**HDLs / EDA:** SystemVerilog | Synopsys Design Compiler (DC) | Cadence Innovus | Siemens ModelSim | Cadence Virtuoso

## WORK EXPERIENCE

**Software Developer** **October 2022 - April 2024**
NCR GOLD **Bengaluru, India**

- Designed and deployed a custom ordering platform (Django) to streamline inventory and billing for a wholesale jewelry business; engineered automated workflows to process and analyze 10,000+ orders with systems-level optimization.
- Containerized applications using Docker and integrated AWS cloud deployment, providing scalable performance and seamless updates through production automation pipelines.

**Research Intern** **October 2021 - August 2022**
Indian Institute of Science **Bengaluru, India**

- Led the Propulsion Circuit Team, optimizing a 1.5kW axial flux BLDC motor with Ansys Maxwell; boosted efficiency and responsiveness by upgrading material and coil designs and implementing a new FOC system.
- Conducted advanced research on systems engineering approaches for speed control algorithms with test design methodologies and performance validation and battery management systems for eVTOL aircraft leveraging Simulink, contributing to notable improvements in efficiency and reliability of aircraft propulsion systems.

## PROJECT EXPERIENCE

**Trezzit - Full Stack Bill Splitting Application** **February 2025 - Present**

- Engineered Trezzit, a full-stack expense management application featuring Generative AI-powered expense categorization with advanced prompt engineering and automated workflow optimization for intelligent financial insights.
- Developed production-grade GenAI workflows using Google Gemini API for intelligent expense categorization with Chain of Thought reasoning and iterative prompt refinement, implementing end-to-end automation pipelines for expense processing.
- Currently leading the next phase of growth, focused on scaling the user base to 1,000 members on campus by leveraging iterative development and community feedback. Tech Stack: Django | React | Google Generative AI (Gemini) | Material-UI | Docker

**Intel Automated Self-Checkout (Open Source Contributor)** **January 2025 - February 2025**

- Developed a framework in Python to publish and analyze LiDAR sensor data processing and analysis for autonomous checkout systems; successfully merged contributions to the main branch after comprehensive code review.
- Leveraged Docker and CI/CD pipeline automation, collaborating with a distributed team to enhance sensor fusion accuracy through production-grade automation workflows and systems engineering principles.

**Raspberry Pi Self-Driving Car** **February 2022 - July 2022**

- Developed an autonomous vehicle using Raspberry Pi and Arduino, featuring lane detection, traffic sign recognition, and seamless integration via the I2C communication protocol.
- Streamlined data collection and neural network training with a Bluetooth joystick mode in a collaborative team effort; project received the Best Project Award in the EEE Department among approximately 40 submissions.

## AWARDS & HONORS

- Won the 'Best Use of AI' award at Strategy X DevHacks'25 at ASU for developing AdaptED AI, a platform leveraging Google's Gemini AI to generate personalized learning paths and resources for students.
- Secured second place in the Hack SoDA 2024 at ASU with a team of four, developing PassGen, a secure and offline Chrome Extension for generating unique passwords, during a 24-hour hackathon sponsored by Amazon.
- Ranked among the Top Ten teams in the e-Yantra national-level robotics competition organized by IIT Bombay, for designing and developing a self-balancing dairy bike on CoppeliaSim, February 2022.